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To:	USPTO, Group Art Unit 3682 Attn. Examiner T. Boes
Fax number:	+1-571-273-8300
From:	Michael Merz
Fax number:	+49-30-44718491
Telephone number:	+49-177-493-7040
Date:	April 30, 2007
Total number of pages:	16 (incl. this page)

Dear Sirs:

We would like to submit our response to the Office Action dated 03/12/2007 regarding application no 10/788,923, filed 02/27/2004 and titled "Parallel kinematics mechanism with a concentric spherical joint". We have attached

- ¶ Response to office action (14 pages)
- ¶ Certificate of facsimile transmission (1 page)

I hope this information is complete. I would very much appreciate if you could let me know in case the documents have not been properly transmitted. Thank you very much!

Sincerely,



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application no:	10/788,923	Art unit:	3682
Filed on:	02/27/2004	Examiner:	T. Boes
Title:	Parallel kinematics mechanism with a concentric spherical joint		
Applicants:	Roy et al.		

Berlin (Germany), 04/30/07

RESPONSE TO OFFICE ACTION

Commissioner of Patents
Washington, D.C. 20231

Dear Sir:

In response to the Office Action dated 03/12/2007 and the telephone call with the Examiners Terence Boes and David Fenstermacher on 04/24/2007, the contents of which is summarized herein, applicants respectfully request consideration of the following amendments and remarks.

Amendments

Please cancel claims 25-38.

In claim 1, on p. 34, l. 9, please replace "a second limb member" with "one and only one second limb member", and in claim 1, on p. 34, l. 16 "a forearm" with "one and only one forearm" (see comments in the sections "Remarks" and "Highlighted claim amendments"). Thus, the amended claim 1 now reads:

1. (amended) A mechanism for positioning and orienting an end component in space with at least five degrees of freedom, the mechanism comprising:

a base;

a first actuator limb comprising at least a platform connected to said base by a revolute joint allowing one rotational degree of freedom about a central axis, a first

Application no 10/788,923

limb member movably connected to said platform with a single actuated degree of freedom relative to said platform, and one and only one second limb member movably connected to said first limb member, said second limb member having at least three degrees of freedom relative to said base, wherein at least one of said degrees of freedom of said second limb member is actuatable relative to said base;

at least second, third, fourth, and fifth actuator limbs, each of the actuator limbs comprising at least an actuator arm rotatably connected to said base by an actuated revolute joint allowing rotation about a respective actuator axis, each of said second, third, fourth, and fifth actuator limbs further comprising one and only one forearm movably connected to said actuator arm of the respective actuator limb, wherein said forearm has at least three degrees of freedom relative to said actuator arm including one free rotational degree of freedom about a respective forearm axis;

a first joint body, wherein said second limb member is rotatably connected to said first joint body and allowed to rotate relative to said first joint body about a first joint axis, and wherein each of the forearms of said second and third actuator limbs is rotatably connected to said first joint body and allowed to rotate relative to said first joint body about a respective second and third joint axis which is non-parallel to said forearm axis of the respective actuator limb;

a second joint body, wherein each of the forearms of said fourth and fifth actuator limbs is rotatably connected to said second joint body and allowed to rotate relative to said second joint body about a respective fourth and fifth joint axis which is non-parallel to said forearm axis of the respective actuator limb; and

said end component movably connected to each of said first and second joint bodies, the end component having at least two rotational degrees of freedom relative to each of said first and second joint bodies such that said end component is movable with at least five degrees of freedom relative to said base.

Remarks

Information Disclosure Statement

The patent not considered by the Examiner (US 5,657,548) has a typographical error: The last two digits have accidentally been swapped. The correct patent number is US 5,657,584, titled "Concentric joint mechanism", inventor name "Hamlin", date of patent Aug. 19, 1997. Applicants respectfully request consideration of the reference, because inventor name and issue date have been properly listed in the IDS and together uniquely identify the patent reference of interest.